REMARKS

Applicants note the Examiner's "Claim Interpretations" set forth in the Office Action (pages 2-3, ¶¶2-3). Applicants' response to these interpretations as set forth in the Response to the first Office Action is maintained but not repeated herein.

Claims 10, 12 and 15 are indicated as allowable if rewritten in independent form to include the limitations of the base claim and intervening claims. Applicants thank the Examiner for this acknowledgement of patentable matter. However, Claims 10, 12 and 15 have not been rewritten because each of their base and intervening claims are also thought to be allowable.

The Office Action fails to establish that claims 1-9, 14, and 16-19 are anticipated by US patent number 6,223,326 to Fields et al. ("Fields-1") under 35 USC §102(e). The rejection is respectfully traversed because the rejection fails to establish a *prima facie* case of anticipation. To establish a *prima facie* case of anticipation, the rejection must show that all the limitations are identically shown in a prior art reference, which the rejection fails to do.

As to claims 1, 18, and 19, the rejection fails to show that Fields-1 identically shows or teaches the limitations that relate to entering the functional design elements into a database; entering documentation elements into the database; linking the functional design elements with selected ones of the documentation elements; simulating a testbench with the design module, whereby simulation results are generated; storing the simulation results in the database; and linking the simulation results with the functional design elements. Therefore, Applicants respectfully request the rejection be withdrawn.

For example, the rejection alleges that Fields-1 teaches simulating a testbench with the design module, storing the simulation results in the database, and linking the simulation results with the functional design elements. However the cited

portions of Fields-1 (FIG. 1, elements 104, 110 and associated text; and FIG. 3, elements 306-318) do not appear to mention storing simulation results in any manner. Nor does the cited text teach or suggest storing the simulation results in a database and linking the simulation results with the functional design elements.

The Office Action alleges that "storing the simulation results is inherent in Fields-1 [because] the Performance/Density analyzer would not be able to 'provide the results as output' without storing them in RAM or some form of media." It is respectfully submitted that not only is the inherency allegation unfounded, but also the allegation fails to address the limitations that relate to storing the simulations results in a database and linking the simulation results with the functional design elements.

The Office Action fails to provide evidence that the limitations related to storing the simulation results are inherent in Fields-1. "The fact that a certain result or characteristic <u>may</u> occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." MPEP 2112, citing *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (emphasis in original). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic <u>necessarily</u> flows from the teachings of the applied prior art." *Ex parte Levy,* 17 USPQ2d 1461, 1464 (Bd.

Pat. App. & Inter. 1990) (emphasis in original).   (See MPEP
2112).

The present claims include limitations that relate to
storing the simulation results in a database, and the Office
Action alleges that Fields-1 would need to store
performance/analysis results in a RAM or some form of media in
order to provide the results as output.   Those skilled in the
art will appreciate that storing the results in RAM or media
does not necessarily imply storing the data in a database.
Furthermore, storing data in a RAM or other media does not
imply linking the data to functional design elements in a
database.   Therefore, the Office Action fails to show that
these limitations are shown, suggested, or inherent in Fields-
1.

The Office Action further fails to show that Fields-1
teaches the limitations related to simulating.   The Office
Action alleges that the performance/density analyzer of Fields-
1 is identical to the claimed simulating.   The
performance/density analyzer of Fields-1 measures performance,
for example, delay along a critical path, and density, for
example, the number of gates per die (col. 4, 11. 20-28).   This
analysis appears to entail counting gates in a critical path
and counting gates in a design, in contrast to the present
invention.   Furthermore, Fields-1 does not disclose or teach
simulating a testbench with the design module.   Thus, the
Office Action fails to show that Fields-1 identically shows the
limitations related to simulating.

.For at least the reasons set forth above, the rejection
fails to show that claims 1, 18, and 19 are anticipated, and
the rejection should be withdrawn.

Each of claims 2-9, 14, and 16-17 depends, either directly
or indirectly, from claim 1, and each includes all of the
limitations of claim 1.   Therefore, for at least the reasons
set forth above with respect to claim 1, the Office Action
fails to show that these claims are anticipated by Fields-1.

Furthermore, as to claim 2, the rejection fails to show
that Fields-1 identically shows the limitations that relate to

translating the functional design elements into a netlist; and linking elements of the netlist with selected ones of the functional design elements. Even though the current Office Action now cites teachings of Fields-1 that are different from the teachings cited in the first Office Action, the Office Action still fails to show that Fields-1 identically teaches these limitations.

The Office Action now cites Fields-1, col. 4, ll. 17-37 as identically teaching these limitations, and specifically alleges that linking the netlist elements with selected ones of the functional design elements is inherent in Fields-1. In view of the requirements to establish inherency, as set forth above, the Office Action fails to provide sufficient evidence. The Office Action has only alleged that commercially available synthesizers analyze netlists for performance and density. The Office Action fails to provide evidence that linking netlist elements with selected ones of the functional design elements is a necessary condition to performing the alleged analysis. Therefore, the Office Action fails to show that the limitations are inherent in Fields-1 and fails to show that claim 2 is anticipated.

The rejection of claim 3 is deficient for reasons similar to those set forth above in response to the rejection of claim 2. Claim 3 includes limitations that relate to linking elements of the physical implementation with selected ones of the functional design elements. The cited portions of Fields-1 do not appear to show or suggest such linking. Therefore, the rejection fails to show that claim 3 is anticipated.

Claim 4 includes limitations that relate to entering simulation elements in the database; and linking the simulation elements to associated ones of the design elements. As explained above, the Office Action fails to show that Fields-1 teaches simulation. Therefore, the Office Action also fails to show the limitations related to simulation elements.

Claim 5 includes limitations that relate to entering documentation for a design script in the database, and linking the documentation of the design script to the design elements

comprising the design module. The current Office Action now alleges that the teaching in Fields-1 of Verilog and VHDL coding teaches the limitations related to design scripts. However, those skilled in the art will understand that Verilog and VHDL are not scripting languages, but are Hardware Description Languages (HDLs). Therefore, the Office Action fails to show that Fields-1 anticipates claim 5.

Claim 6 includes limitations that relate to storing documentation for simulation elements in a database and linking the documentation with the simulation elements. As explained above, the rejection fails to show that Fields-1 teaches limitations related to storing simulation information in a database, and no evidence has been cited that identically shows documentation for the simulation elements. Therefore, claim 6 is not shown to be anticipated.

As to claims 7 and 8, the rejection fails to show the limitations that relate to inspecting the functional design elements and simulation elements for associated documentation; and reporting documentation deficiencies in association with the functional design elements and simulation design elements. The new basis for rejection alleges that the teaching in Fields-1 of a database containing examples of coding styles found to be inefficient and subsequent queries to the database is identical to these limitations. However, those skilled in the art will understand that documentation is not identical to examples of coding styles. Furthermore, no evidence is provided in the Office Action to support this unconventional interpretation of documentation and coding styles. Therefore, claims 7 and 8 are not shown to be anticipated.

Claim 9 depends from claim 1, and the Office Action fails to show that it is anticipated for at least the reasons set forth above.

The Office Action fails to establish that Fields-1 anticipates claim 14 for reasons similar to those set forth above in response to the rejection of claim 3.

Claims 16 and 17 include limitations that relate to displaying design elements associated with errors in simulation

results and displaying documentation elements associated with errors in simulation results. As explained above, the rejection fails to show that Fields-1 teaches the limitations that relate to simulation, simulation results, and linking to functional design elements. Therefore, the rejection fails to show that Fields-1 teaches the further limitations of claims 16 and 17.

The rejection fails to show that claims 1-9, 14, and 16-19 are anticipated by Fields-1 and should be withdrawn.

The Office Action fails to establish a *prima facie* case of obviousness of claims 1, 9, 11, and 18-19 under 35 USC §103(a) over US patent number 5,673,199 to Gentry ("Gentry") in view of the paper entitled, "6.111 Introductory Digital Systems Laboratory" ("Emacs"). The rejection is traversed because the Office Action fails to show that all the limitations are suggested by the combination, fails to provide evidence in support of a motivation to combine the references, and fails to show that the teachings of the references could be combined with a reasonable likelihood of success.

The rejection fails to show all the limitations of the independent claims 1, 18, and 19. For example, the rejection alleges that Gentry suggests the limitations that relate to storing simulation results in the database and linking the simulation results with the functional design elements. However, the cited elements of Gentry's FIG. 2 and associated text only generally suggest simulation. There is no apparent mention of where the simulation results are stored, much less linking the results to specific functional design elements. Therefore, the rejection fails to show that all the limitations are suggested.

The recent Office Action further cites Gentry's FIG. 2, items 36, 36', 40, and 42, as teaching these limitations. However, nothing in the accompanying textual description in Gentry at col. 5, lines 37-61 appears to teach the limitations that relate to storing the simulation results in a database and linking the simulation results with the functional design elements. Instead, this text appears to suggest storing

various implementations of functions in design infobases 36 and 36'. The text suggests simulation but does not address storage of the simulation results, in a database or elsewhere, nor any linking with functional design elements. If there is alternative text that the Examiner believes to teach the claim limitations, a citation is respectfully requested. Since the rejection fails to show all the limitations of claims 1, 18, and 19, Applicants respectfully request allowance of these claims.

Claim 9 depends from claim 1 and *prima facie* obviousness is not established for at least the reasons set forth above. Furthermore, those skilled in the art will appreciate that VHDL compiler errors are not suggestive of inspecting for undesirable design characteristics. A coding error detected by a compiler is merely a syntax error as to form of the coding, and is not related to any characteristic of the design.

Claim 11 depends from claim 9 and includes limitations that relate to inspecting the functional design elements for adherence to predefined design rules and reporting violations of the design rules. In rejecting claim 11, the Office Action relies on the same teachings of Emacs that are relied on in rejecting claim 9. Claim 9 includes limitations that relate to inspecting for undesirable design characteristics. It is respectfully submitted that the design characteristics of claim 9 are patentably distinct from the design rules of claim 11, and the Office Action does not raise any objections that the claims 9 and 11 are identical. Thus, the Office Action implicitly acknowledges that the limitations are different, while alleging that the same teachings of Emacs teach both inspecting for undesirable design characteristics and inspecting for violations of design rules. Since the cited teaching has already been applied to the claim 9 limitations, the Office Action fails to show a teaching of the distinct claim 11 limitations. Furthermore, those skilled in the art will recognize that design rules are not the same as proper VHDL syntax, nor are any design rules suggested by VHDL syntax.

The alleged motivations for combining Emacs with Gentry are conclusory and therefore improper. Furthermore, no evidence is provided from the prior art to suggest the combination, and no evidence is provided to show a likelihood of successfully combining the references. Therefore, for these reasons and because the rejection fails to show a suggestion of all the limitations, *prima facie* obviousness is not established.

The Office Action fails to establish a *prima facie* case of obviousness of claims 2-3 and 13-14 under 35 USC §103(a) over Gentry in view of Emacs and further in view of the Web pages collectively entitled, "Introduction to Synopsys to XACT M1 Design Flow" ("XACT"). The rejection is traversed because the Office Action fails to show that all the limitations are suggested by the combination, fails to provide evidence in support of a motivation to combine the references, and fails to show that the teachings of the references could be combined with a reasonable likelihood of success.

Claims 2 and 14 depend from claim 1, and claim 3 depends from claim 2. As explained above, the rejection fails to establish a *prima facie* case of obviousness of claim 1 in view of the Gentry-Emacs combination. Therefore, for at least these reasons *prima facie* obviousness is not established for claims 2 and 3.
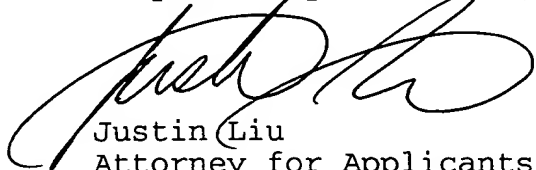
Withdrawal of the rejection of claim 13 is acknowledged.

The Office Action fails to provide evidence of a suggestion of all the limitations of the pending claims, fails to provide a proper motivation for modifying the teachings of Gentry with Emacs and XACT, and fails to provide evidence of a reasonable likelihood of success in modifying the teachings of Gentry with Emacs and XACT. Therefore, a *prima facie* case of obviousness has not been established, and the rejection should be withdrawn.

CONCLUSION

The Office Action fails to establish that the pending claims are anticipated or obvious in view of the cited references. Reconsideration and a notice of allowance are respectfully requested in view of the Remarks presented above. If the Examiner has any questions or concerns, a telephone call to the undersigned is invited.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, Mail Stop Non-Fee Amendment, on December 22, 2003.

Julie Matthews
Name

Signature